

WHAT IS CLAIMED IS:

53  
52

5

31

10

15

2. The method as claimed in claim 1 where the refining step is performed in the normalized RGB chromatic color space.

3. The method as claimed in claim 1 wherein the refining step is performed in  $YC_bC_r$  color space.

4. The method as claimed in claim 1 wherein said image comprises one frame of video data.

5. The method as claimed in claim 1 wherein said image comprises more than one frame of video data.

6. The method as claimed in claim 1 wherein said image comprises a still image.

1. A method for background replacement in image capture systems, comprising the steps of:

- recording a background of an image with no foreground object with an image capture device;
- using said image capture device to capture an input image;
- classifying each pixel in said input image as a foreground pixel or a background pixel;
- refining said classification to ensure proper classification;
- replacing said background pixels with pixels from a different background, wherein said replacing is performed with feathering; and
- producing an output image comprised of said foreground pixels and said pixels from a different background.

*Ch 0005*

7. The method as claimed in claim 1, wherein said refining step is performed with anisotropic diffusion.
8. The method as claimed in claim 1, wherein said refining step is performed with morphological filtering.
9. The method as claimed in claim 1, wherein said output image is a video image.
10. The method as claimed in claim 1, wherein said output image is a still image.